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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Application of  
David W. Manning, et al.

Serial No.: 10/624,360

Filed: July 22, 2003

Title: BATTERY-POWERED SEWER  
AND DRAIN CLEANER

Group No.: 1744

BEFORE THE BOARD  
OF PATENT APPEALS  
AND INTERFERENCES

Appeal No. \_\_\_\_\_

APPELLANTS' AMENDED APPEAL BRIEF

Commissioner for Patents  
Alexandria, VA 22313

Dear Sir:

REAL PARTIES IN INTEREST

The Appellants have not assigned any of their rights; therefore, the real parties in interest are David W. Manning and John A. Kline.

RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to this case.

STATUS OF THE CLAIMS

This is an appeal of the Examiner's final rejection of claims 1-7. Claim 1 is an independent claim with claims 2-7 ultimately depending therefrom. Appellants believe that each of the claims is individually allowable and stands by itself.

## STATUS OF AMENDMENTS

The Examiner entered a final rejection of Appellants' claims on March 29, 2005. Appellants did not file an Amendment After Final Rejection.

## SUMMARY OF THE CLAIMED SUBJECT MATTER

The invention defined in the only independent claim (claim 1) is a battery-powered sewer and drain cleaner (10) as shown in Fig. 2. Claim 1 describes that the cleaner 10 includes a frame 12 (page 3, lines 9-10) having a rotatable drum 16 mounted thereon which has a flexible plumbers snake 18 associated therewith (page 3, lines 14-15). A DC motor 20 is mounted on the frame 12 (page 3, line 16) and has a driven shaft which is connected to the drum 16 for rotating the same. A rechargeable battery 22 mounted on the frame 12 for powering the DC motor 20 (page 3, lines 20-21). A control 24 is connected to the DC motor for controlling the operation thereof (page 3, lines 21-22). The phrase "a control connected to said DC motor for controlling the operation thereof", if construed as a means-plus-function limitation pursuant to 35 U.S.C. § 112(6) would include a motor control and voltage control and equivalents thereof (page 3, lines 21-22).

Each of claims 2-7 are believed to be allowable but do not include any means-plus-function limitations pursuant to 35 U.S.C. § 112(6).

## GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over O'Brien '740. The Examiner stated that O'Brien '470 discloses all of the recited subject matter with the exception of a motor that is a DC motor and a rechargeable

1 battery mounted on the frame for powering the DC motor. The Examiner concluded  
that it would have been obvious to one of ordinary skill in the art to have modified  
O'Brien's cleaner such that the motor is a DC motor to aid in O'Brien's goal of easing  
portability.

5 The Examiner also addressed claims 2, 3, 4, 5, 6 and 7 and stated that the  
structure recited in those claims would have been obvious to a person of ordinary  
skill in the art.

#### ARGUMENT

10 (A) Whether claim 1 is unpatentable over O'Brien pursuant to 35 U.S.C. §  
103(a).

In the final rejection, the Examiner stated that with respect to claim 1, the  
patent to O'Brien '740 discloses all of the recited subject matter with the exception of  
a motor that is a DC motor and a rechargeable battery mounted on the frame for  
15 powering the DC motor. The Examiner has taken the position that with respect to  
claim 1 it would have been obvious to one of ordinary skill in the art to have modified  
O'Brien's cleaner such that the motor is a DC motor to aid in O'Brien's goal of easing  
portability of the entire device. The Examiner has taken the position that avoiding the  
need for long extension cords leading to electrical outlets would be contrary to  
20 O'Brien's stated goal of portability. The Examiner also believes that including a  
rechargeable battery mounted on the frame for powering the DC motor and enabling  
the battery to be recharged for prolonged usage and extending its useful life would  
be obvious.

1 In determining the difference between the prior art and the claims, the  
question under 35 U.S.C. § 103 is not whether the differences themselves would  
have been obvious, but whether the claimed invention as a whole would have been  
obvious. Stratoflex Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir.  
5 1983). A prior art reference must be considered in its entirety, i.e., as a whole,  
including portions that would lead away from the claimed invention. W.L. Gore &  
Associates Inc. v. Garlock Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983).  
Distilling an invention down to the "gist" or "thrust" of an invention disregards the  
10 requirement of analyzing the subject matter "as a whole." Id.

Even more damaging to the Examiner's modification of O'Brien is that the  
Examiner has failed to point out any suggestion or motivation to modify the reference  
in the manner suggested. MPEP § 2143.01. Obviousness can only be established  
by combining or modifying the teachings of the prior art to produce a claimed  
15 invention where there is some teaching, suggestion, or motivation to do so, found  
either explicitly or implicitly in the references themselves or in the knowledge  
generally available to one of ordinary skill in the art. Id. In Kotzab, 217 F.3d 1365,  
1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000), the Federal Circuit decided that the  
20 control of multiple valves by a single sensor rather than by multiple sensors was a  
technologically simple concept. However, the Federal Circuit held that there was no  
finding as to the specific understanding or principle within the knowledge of the  
skilled artisan that would have provided the motivation to use a single sensor as the  
25 system to control more than one valve. Id.

1           The mere fact that a reference can be modified does not render the resulting  
modification obvious unless the prior art also suggests the desirability of the  
modification. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). "A  
statement that modifications of the prior art to meet the claimed invention would have  
5       been 'well within the ordinary skill of the art at the time that the claimed invention was  
made because the references relied upon teach that all aspects of the claimed  
invention were individually known in the art' is not sufficient to establish a *prima facie*  
case of obviousness...." Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. &  
10       Inter. 1993).

          Regarding the present invention, the Examiner has failed to show any  
suggestion or motivation to modify the O'Brien reference. Therefore, Appellants  
assert that the structure of claim 1 would not have been obvious to one having  
ordinary skill in the art at the time of the invention pursuant to 35 U.S.C. § 103(a).  
15       Appellants contend that the electrocution hazard involved with AC sewer and drain  
cleaners has been widely recognized for many years, but Appellants are believed to  
be the first persons to ever develop a battery-driven sewer and drain cleaner such as  
set forth in claim 1. Suddenly, due to 20/20 hindsight, the Examiner believes that  
20       Appellants battery-powered sewer and drain cleaner as set forth in claim 1 would  
have been obvious, although the Examiner has been unable to find a single piece of  
prior art wherein a sewer and drain cleaner has been controlled and driven by a low  
voltage DC motor.

1 (B) Whether claim 2 is unpatentable over O'Brien pursuant to 35 U.S.C. §  
103(a).

5 Claim 2 is dependent on claim 1 and adds the limitation thereto that the DC  
motor is operatively connected to the drum by a belt drive. Even though O'Brien '740  
does teach that a belt 60 passes around the outer drum, the motor 58 of O'Brien is  
not a DC motor. Accordingly, claim 2 is believed to be allowable over O'Brien '740  
since O'Brien does not teach or suggest that a DC motor be operatively connected to  
the drum by a belt drive. Claim 2 is also believed to be allowable for the reasons set  
10 forth above with respect to claim 1.

(C) Whether claim 3 is unpatentable over O'Brien pursuant to 35 U.S.C. §  
103(a).

15 Claim 3 depends from claim 1 and adds the limitation thereto that the DC  
motor is operatively connected to the drum by a gear drive. Inasmuch as O'Brien  
does not teach a DC motor and does not teach that the drum could be driven by a  
gear drive, Appellants submit that claim 3 is allowable over O'Brien '740 inasmuch as  
there is absolutely no suggestion or teaching that the O'Brien '740 sewer and drain  
cleaner could be driven by a DC motor which was operatively connected to the drum  
20 by a gear drive. Accordingly, claim 3 is believed to be allowable as set forth herein  
and for the reasons set forth above with respect to claim 1.

(D) Whether claim 4 is unpatentable over O'Brien pursuant to 35 U.S.C. §  
103(a).

1            Claim 4 depends from claim 1 and adds the limitation thereto that the battery  
comprises a battery pack. There is absolutely no suggestion in O'Brien that a sewer  
and drain cleaner could be driven by a DC battery, let alone a DC battery pack.  
Accordingly, claim 4 defines structure which would not have been obvious to a  
5            person having ordinary skill in the art at the time of the invention under 35 U.S.C. §  
103(a). Claim 4 is also believed allowable for the reasons set forth above with  
respect to claim 1.

10            (E)    Whether claim 5 is unpatentable over O'Brien pursuant to 35 U.S.C. §  
103(a).

15            Claim 5 depends from claim 1 and adds the limitation thereto that the DC  
motor comprises a high speed, high torque motor. Inasmuch as O'Brien '740 does  
not remotely teach or suggest that the '740 machine could be battery-operated, there  
can be no teaching or suggestion that a DC motor could be used which is a high  
speed, high torque motor. A high speed, high torque motor is necessary to achieve  
the proper drain cleaning function. Inasmuch as the prior art is devoid of any  
teaching that a sewer and drain cleaner could be battery-powered, there can be no  
teaching or suggestion that such a DC motor would be a high speed, high torque  
20            motor. Therefore, the structure set forth in claim 5 is believed to be allowable over  
O'Brien '740. Claim 5 is also believed allowable for the reasons set forth above with  
respect to claim 1.

25            (F)    Whether claim 6 is unpatentable over O'Brien pursuant to 35 U.S.C. §  
103(a).

1           Claim 6 depends from claim 1 and adds the limitation thereto that the battery-  
powered sewer and drain cleaner of claim 1 is a low voltage DC motor. Appellants  
incorporate the remarks set forth hereinabove in support of their contention that the  
use of a low voltage DC motor to power a battery-powered sewer and drain cleaner  
5       would not have been obvious under 35 U.S.C. § 103(a). Accordingly, claim 6 should  
be allowed. Claim 6 is also believed allowable for the reasons set forth above with  
respect to claim 1.

10           (G)   Whether claim 7 is unpatentable over O'Brien pursuant to 35 U.S.C. §  
103(a).

15           Claim 7 depends from claim 1 and adds the limitation thereto that the control  
includes a motor and voltage control. Again, there is absolutely no suggestion  
whatsoever in O'Brien '740 that a battery-powered sewer and drain cleaner could be  
controlled by a motor and voltage control mechanism. Therefore, claim 7 is also  
believed to be allowable. Claim 7 is also believed allowable for the reasons set forth  
above with respect to claim 1.

#### CONCLUSION

20           The foregoing has clearly shown that each of the claims under consideration is  
not rendered obvious under 35 U.S.C. § 103(a). Accordingly, the Examiner's final  
rejection should be reversed.



Respectfully submitted,



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CERTIFICATE OF MAILING

I hereby certify that the original of APPELLANTS' AMENDED APPEAL BRIEF for DAVID W. MANNING, ET AL., Serial No. 10/624,360, was mailed by first class mail, postage prepaid, to the Mail Stop Appeal Briefs-Patent, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 7<sup>th</sup> day of July, 2005.



DENNIS L. THOMTE



## CLAIMS APPENDIX

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1. A battery-powered sewer and drain cleaner, comprising:

a frame;

a rotatable drum mounted on said frame which has a flexible plumber's snake

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associated therewith;

a DC motor mounted on said frame;

said motor having a driven shaft operatively connected to said drum for rotating the

same;

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a rechargeable battery mounted on said frame for powering said DC motor;

and a control connected to said DC motor for controlling the operation thereof.

2. The battery-powered sewer and drain cleaner of claim 1 wherein said DC motor is operatively connected to said drum by a belt drive.

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3. The battery-powered sewer and drain cleaner of claim 1 wherein said DC motor is operatively connected to said drum by a gear drive.

4. The battery-powered sewer and drain cleaner of claim 1 wherein said battery comprises a battery pack.

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5. The battery-powered sewer and drain cleaner of claim 1 wherein said motor comprises a high speed, high torque motor.

6. The battery-powered sewer and drain cleaner of claim 1 wherein said motor is a low voltage DC motor.

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7. The battery-powered sewer and drain cleaner of claim 1 wherein said control includes a motor and voltage control.